

## McGILL UNIVERSITY Faculty of Medicine School of Communication Sciences & Disorders Fall 2019

#### SCSD-644

#### **Applied Neurolinguistics**

Number of Credits: 3 Credits
Course Time: Tuesday; 12:30 – 2:30 PM

Labs: 2:45 – 3:45 Location: SCSD, Room 869

### Instructors Noémie Auclair-Ouellet, PhD

**Office:** SCSD, Room 820; **Office Phone:** 514-398-4476 **Office Hours:** By appointment (please set up by email)

Email: noemie.auclairouellet@mcgill.ca

#### Jesse Burns

McGill University Health Centre; Royal Victoria Hospital - Glen Campus

**Office Phone**: 514-934-1934 ext. 34968

Office Hours: Immediately after class (please set up by email)

Email: jesse.burns@mcgill.ca

#### Michelle Bourque

Constance Lethbridge Rehabilitation Centre **Email**: michelle bourque@ssss.gouv.gc.ca

#### Alena Seresova

McGill University Health Centre; Montreal General Hospital

Office Phone: 514-934-1934, ext. 42125 Email: alena.seresova@muhc.mcgill.ca

**COURSE OVERVIEW:** This course covers theoretical and clinical issues as well as principles relevant to the assessment and treatment of adults with acquired neurogenic language and cognitive-communication disorders (aphasia, right-hemisphere damage, dementia and traumatic brain injury). Clinical labs are designed to expose students to clinical materials and practice in assessment and therapy through case examples. Labs will parallel the typical sequence of the clinical process (i.e. chart review, assessment, education/counselling and therapy) and will be coordinated with relevant lectures where possible.

#### **LEARNING OBJECTIVES:**

#### **ROLE 1: CENTRAL ROLE/CONTENT EXPERT**

Foundational principles				
Apply specialized knowledge of disorders of human communication, including knowledge in each of the following areas: communication modalities, cognitive and social aspects of communication, fluency, language and literacy.				
Identify, describe and compare different forms of acquired language disorders with respect to etiology, symptoms, impacts on verbal and functional communication, and prognosis.	Lectures; Labs; Group presentations and discussions; Mid-term exam; Final exam			
Apply knowledge of principles of clinical practice, including us rehabilitation instrumentation and procedures, behavioral man management and counseling.				
Make assessment and treatment decisions that are in the client's best interest, that are realistic, and that are well justified based on fundamental knowledge and clinical expertise.	Lectures; Labs; Group presentations and discussions; Mid-term exam; Final exam			
Use problem-solving and clinical judgment in all aspects of practice.				
Approach new cases and referrals with a structured method based on problem-solving skills and clinical judgment.	Lectures; Labs			
Assessment				
Develop assessment strategy to evaluate communication.				
Identify standard batteries and tests, as well as informal assessment methods, to evaluate different components of language and communication; justify their use.	Lectures; Labs; Mid-term exam; Final exam			
Include relevant information from other sources.				
Extract information from the patient chart to inform assessment planning.	Lectures; Labs; Mid-term exam; Final exam			
Integrate and interpret findings.				
Score tests and interpret results based on tests' norms. Integrate results from different tests and different components of language to determine a diagnostic conclusion for a specific acquired language disorder and determine prognosis.	Lectures; Labs; Mid-term exam; Final exam			
Intervention planning				
Develop a realistic and measurable intervention plan.				
Select a treatment approach based on patient needs, professional expertise, and feasibility. Identify measurable outcomes and generalization measures to evaluate treatment efficacy.	Lectures; Labs; Group presentations; Mid-term exam; Final exam			

# Describe resources required to implement a specific treatment and determine the feasibility of service provision considering limits and constraints. Lectures; Labs; Group presentations and discussions; Mid-term exam; Final exam Intervention and (re)habilitation Monitor, adapt or redesign intervention plan as required. Based on measurable outcomes, determine if the attainment of goals is progressing as expected. Identify ways to adapt the

#### **ROLE 2: COMMUNICATOR**

Oral and Written Communication		
Employ strategies and aids to minimize communication barriers.		
Develop aphasia-friendly material.  Aphasia-friendly Material.  Assignment		

#### **ROLE 4: ADVOCATE**

Client advocacy		
Identify and address client access barriers to services and resources.		
Identify constraints (including at the organizational level) to service provision associated with specific treatment approaches.	Labs; Group presentation and discussion	

#### **ROLE 5: SCHOLAR**

Evidence-informed practice			
Appraise research and other evidence critically in order to address client, service or practice questions.			
Critically appraise the validity of assessment instruments and the evidence on the efficacy of different treatment approaches and methods.	Lectures; Labs; Group presentations; Mid-term exam; Final exam		

intervention plan if required.

discussions; Mid-term exam;

Final exam

Facilitation of the learning of others			
Share knowledge related to communication.			
Provide other students with an overview of assessment instruments and treatment approaches to acquired language disorders.	Labs; Group presentation and discussion		

**Note:** ROLE 3: COLLABORATOR, ROLE 6: MANAGER and ROLE 7: PROFESSIONAL are not specifically targeted in this class.

#### **INSTRUCTIONAL METHOD:**

This course consists of lectures, practical activities, and assignments.

#### **REQUIRED COURSE MATERIALS:**

All book chapters, papers and Power Point presentations will be made available on myCourses.

#### **OPTIONAL TEXTBOOKS:**

Both textbooks are on reserve at the library and at the SCSD front desk.

- Chapey, R. (2008). Language Intervention Strategies in Adult Aphasia (5<sup>th</sup> Ed.). Baltimore: Williams & Wilkins.
- Brookshire, R.H. & McNeil, M. R. (2015). Introduction to Neurogenic Communication Disorders (Eighth Edition). St. Louis: Mosby.

#### COURSE CONTENT:

This course includes lectures and labs that present:

- Theoretical and clinical issues relevant to the assessment and treatment of adults with acquired neurogenic language and cognitive-communication disorders;
- Principles of clinical assessment and intervention;
- Clinical materials and methods using case examples.

Week	Date	Lectures and Labs	Other activities
1	Sept. 3	Overview of the course and syllabus Introduction to the clinical setting Neurophysiology and aphasia etiology	Select presentation topic – Doodle  Select battery for presentation – Doodle  Adapt a message to a lay audience: Send by Sept. 9 at 4 pm
2	Sept. 10	Neurophysiology and aphasia etiology (ctd) Introduction to aphasia assessment Adapting explanations and developing aphasia-friendly material	Assignment on Aphasia-friendly material: Select topic – Doodle
3	Sept. 17	Lab: Presentations on assessment batteries (2 h) Medical Chart review (1 h)	

4	Sept. 24	Aphasia assessment: Principles and tools			
		<u>Lab</u> : Assessment planning			
5	Oct. 1	Aphasia treatment by modality and syndrome			
		Guest lecturer: Michelle Bourque			
6	Oct. 8	Principles of aphasia rehabilitation  Impairment-focused approaches to			
		treatment			
		Lab: Counselling			
7	Oct. 15	Cognitive-focused approaches to treatment (1 h)	Hard copy of aphasia-friendly material due at the		
		Lab: Aphasia intervention (2 h)	beginning of class (pdf copy <u>by 4 pm</u> )		
8	Oct. 22	Activity/participation approaches to treatment	Mid-term take-home exam distributed		
		Comparison of approaches and efficacy			
		<u>Lab</u> : Tracking progress			
9	Oct. 29	Presentations on Aphasia Treatment Approaches (3 h)	Presentation <u>and</u> Summary: - pdf = <u>Oct. 28 by 4</u> <u>pm</u> - printout = <u>at the</u> <u>beginning of class</u>		
10	Nov. 5	Right hemisphere communication disorders			
		Lab: Simulation contar debriofing			
44	N 40	<u>Lab</u> : Simulation center debriefing			
11	Nov. 12	Neurodegenerative diseases <u>Lab</u> : Differential diagnosis	Mid-term take-home exam <u>due at the</u> beginning of class		
12	Nov. 19	Traumatic brain injury 1			
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		Guest Lecturer: Alena Seresova			
		Lab: TBI assessment			
13	Nov. 26	Traumatic brain injury 2	Final take-home exam distributed		
		Guest Lecturer: Alena Seresova	CAGIII GIGHIDUIGU		
		Lab: TBI treatment			

#### **DETAILED LAB SCHEDULE:**

Unless otherwise specified, labs will take place during the last hour of class.

Week	Date	Lab Activity		
1	Sept. 3	No Lab		
2	Sept. 10	No Lab		
3	Sept. 17	Student presentations on assessment batteries (2 h) In groups, students will present a brief description and demonstration of their assigned assessment batteries to the class.  Medical chart review (1 h) Students will learn to extract information from a medical chart and to organize it, as well as medical abbreviations and terminology.		
4	Sept. 24	Assessment planning Students will work in small groups to develop an assessment plan after receiving a referral for a new case		
5	Oct. 1	Guest Lecturer - No Lab		
6	Oct. 8	Counselling Basic information given to families about communication disorders and ways to maximize communication will be reviewed. Counselling skills will be developed using case examples.		
7	Oct. 15	Aphasia intervention (2 h) Working with cases, students will classify and describe communication impairments, identify relevant prognostic factors and points for family counselling, and develop treatment targets. Then, they will identify long-term treatment goals, specify short-term goals, and develop a treatment plan.		
8	Oct. 22	Tracking progress Working with cases, students will identify ways to measure progress towards goals and adjust treatment approaches if needed.		
9	Oct. 29	Student Presentations - No Lab		
10	Nov. 5	Simulation centre debriefing Review of adult acquired language simulation centre case and discussion of management strategies for this case.		
11	Nov. 12	Differential diagnosis Cases will be presented for the class to work through the differential diagnosis process in the context of dementia and PPA.		
12	Nov. 19	TBI assessment Using video examples, students will assign a GCS score, identify impairments, and judge whether patients are assessable.		
13	Nov. 26	<b>TBI treatment</b> Using video examples, students will identify appropriate treatment goals and judge prognosis.		

#### **EVALUATION:**

Assignment	Due Date	Sub Roles Targeted	Expected Performance Level
Active Participation in Lab Activities 10%	Throughout the semester	Foundational principles; Assessment; Intervention planning; Intervention and rehabilitation; Client advocacy; Evidence-informed practice; Facilitation of the learning of others	Proficient
Aphasia-Friendly Material 20%	October 15	Oral and written communication	Competent
Group presentation on aphasia treatment approaches 20%	October 29	Foundational principles; Assessment; Intervention planning; Intervention and rehabilitation; Client advocacy; Evidence-informed practice; Facilitation of the learning of others	Competent
Mid-term take home exam 25%	November 12	Foundational principles; Assessment; Intervention planning; Intervention and rehabilitation; Evidence-informed practice	Competent
Final take home exam 25%	December 6	Foundational principles; Assessment; Intervention planning; Intervention and rehabilitation; Evidence-informed practice	Competent

#### **Active Participation**

Active participation is based on attendance and involvement in lab activities. It is worth 10% of your final grade.

#### **Aphasia-friendly Material**

In groups of 4 students (7 groups in total), you will prepare aphasia-friendly material to provide information to persons with aphasia. More detailed guidelines will be provided on September 10. Bring one hard copy at the beginning of class on October 15 and send one pdf copy by email at <a href="mailto:noemie.auclairouellet@mcgill.ca">noemie.auclairouellet@mcgill.ca</a> by 4 pm on the same day. You will receive feedback from the instructor and from people with aphasia who are receiving services at the teaching clinic.

This assignment will be graded on a total of 20 points based on sending the adaptation of a short text to a lay audience (Note: this part is done individually) on time – due September 9, 4 pm (3/20), respect of topic, guidelines, and completion of self-assessment questionnaire (12/20), and feedback from a person with aphasia (5/20). It is worth 20% of your final grade.

#### Topics for aphasia-friendly material

- 1. Neuroanatomy and lateralization of brain function
- 2. Explaining what a stroke is to someone else
- 3. Explaining what aphasia is to someone else
- 4. Aspects of communication (speech, language, pragmatics)
- 5. Language modalities (receptive/expressive, oral/written)
- 6. Telling other people what helps when communicating
- 7. Consenting to treatment and being filmed at the teaching clinic

#### **Group presentations**

In groups of 4 students (7 groups in total), you will give a presentation on an aphasia treatment approach. Your presentation should not exceed 15 minutes in duration and will be followed by a 5-minute discussion. Please be prepared to initiate a discussion by having questions or discussion topics ready for the class. Your presentation will consist of an integration of the relevant information from the readings provided on *myCourses* and an overview of your selected treatment approach. You are encouraged to use additional references to complement those already provided.

Your presentation should answer the following questions:

- 1. What is it (including the name that is most often used to refer to that approach or the best-known treatment in that approach)?
  - O What are the fundamental principles of this approach?
  - o Is it new or is it already well-established?
  - o In what context, or based on which theoretical model(s) was it developed?
- 2. Who is it for?
  - Which clients benefit from this approach (e.g., which language or communication disorder etiology or classification, level of severity, prognosis, needs and expectations)?
- 3. How is it done?
  - o What is the overall structure of this treatment (e.g., frequency and duration of sessions)?
  - What types of activities are done in therapy and/or outside of therapy? Give concrete examples.
  - o What resources are needed?
- 4. What are the expected outcomes and benefits?
  - What are clients expected to gain from this treatment? Are there some specific benefits to this approach compared to other similar or alternative therapies?
  - Is generalization expected (e.g., to untreated items, in other structured activities, outside of therapy)?
  - Give examples of measurable treatment outcomes.
  - o What adaptations can be made if the client is not progressing as expected?
- 5. What are some potential constraints and limitations?
  - o Are there some constraints (including at the organizational level) to this treatment?
  - O What are the limitations of this approach?
  - o What are remaining questions or controversies surrounding it?
  - o How could it be improved?

You are strongly encouraged to add to these questions based on the relevant/interesting questions raised by your specific treatment approach.

Because one of the goals of this assignment is to provide the class with an overview of aphasia treatment options, you are asked to provide a short (2 pages, 12-point font, 1.5 spaced, 2.5 cm margins) written summary of your treatment approach that will be posted on *myCourses* along with your presentation slides.

The summary and slides are due on the day before the presentations (Monday October 28) at 4 pm at the latest. Please send them in Powerpoint and pdf format at <a href="mailto:noemie.auclairouellet@mcgill.ca">noemie.auclairouellet@mcgill.ca</a>. Also bring a printout of your summary and slides on the day of the presentations (October 29). To speed up the transition between groups, presentations will be put on the classroom's computer.

All members of the group are expected to contribute equally to the preparation and presentation. This assignment will be graded on a total of 20 points based on the structure and content of the presentation (see above) (10/20), handout quality (5/20), and preparedness to answer questions and initiate a discussion (5/20). It is worth 20% of the final grade.

#### Topics for group presentations (associated readings are on *myCourses*)

- 1. Treating Lexical Impairments with Semantic and Phonological Approaches
- 2. Treatments Targeting Verbs and Syntax
- 3. Constraint-Induced Language Therapy
- 4. Script Training
- 5. Melodic Intonation Therapy
- 6. Group Intervention for Aphasia
- 7. Training Conversation Partners

#### Mid-term take home exam

The mid-term take home exam will be distributed and explained at the end of Week 8 on October 22. It will cover the content presented in lectures and labs from Week 1 to Week 8 inclusively. The exam includes short essay questions (5-10 lines), and long essay questions (half a page). It is due at the beginning of the class on November 12. Students are expected to complete this exam individually. It counts for 25% of the final grade.

#### Final take home exam

The final take home exam will be distributed and explained at the end of the last lecture on November 26. It will cover the content presented in lectures and labs from Week 10 to Week 13 inclusively. It will include short answers (a few words or a sentence), short essay questions (5-10 lines), and long essay questions (half a page). It is due by 4 pm on December 6. Students are expected to complete this exam individually. It counts for 25% of the final grade.

#### **McGILL POLICY STATEMENTS:**

#### **Academic Integrity**

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see <a href="www.mcgill.ca/students/srr/honest/">www.mcgill.ca/students/srr/honest/</a>) for more information).

#### Language of Submission

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.

#### **ADDITIONAL STATEMENTS:**

#### **USE OF SMART PHONES, TABLETS AND LAPTOPS:**

Students are permitted to use Smartphones, tablets, and computers in class for academic purposes e.g. taking notes, researching relevant information, calendar functions etc. They may not be used for social reasons e.g. texting, Facebook, Twitter, Instagram etc. If students are using technology for non-academic purposes in class they may lose the privilege of using these items in class. No audio or video recording of any kind is allowed in class without the explicit permission of the instructor.

#### STUDENTS WITH DISABILITES:

As the instructor of this course I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the <u>Office for Students with Disabilities</u>, 514-398-6009.